

APPENDIX A- Cover Sheet

Tennessee College of Applied Technology-Harriman

2019 Governor's Investment in Vocational Education (GIVE)

Greater Valley Partnership for Advanced Manufacturing Skills

Tennessee College of Applied Technology-Harriman

Tennessee College of Applied Technology-Harriman

IN PARTNERSHIP WITH:

1. Roane Alliance/Roane County Chamber of Chamber
2. Tennessee College of Applied Technology-Harriman
3. Roane County Schools
4. CoorsTek/Dienamic Tooling Systems(DTS)/Massey Electric Company/MPP Rockwood

Chris Ayers

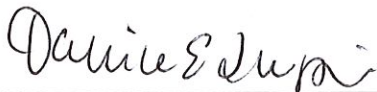
1745 Harriman Highway, Harriman, TN 37748

(865) 882-6703

cayers@tcatharriman.edu

Funding requested:

\$1,000,000.00



**President of Higher Education
Institution (Fiscal Agent)**



Project Director (Lead Entity)

TABLE OF CONTENTS

PROJECT SUMMARY

PROGRAM PROPOSAL

INTRODUCTION

DEMONSTRATION OF NEED

PROGRAM PLAN

TIMELINE

GOALS

OBJECTIVES

STRENGTH OF PARTNERSHIP

BUDGET

SUSTAINABILITY

ECONOMIC STATUS ACKNOWLEDGEMENT

SUPPORTING DATA/DOCUMENTATION

LOCALIZED LABOR MARKET DATA

THEC HIGH-DEMAND OCCUPATION REPORT

TN DOL HOT CAREERS TO 2024

PROGRAM SPECIFIC OCCUPATIONAL PROFILES

INDUSTRY PARTNERS

COORSTEK

DIENAMIC TOOLING SYSTEMS(DTS)

MASSEY ELECTRIC COMPANY

MPP ROCKWOOD

ECD PARTNERS

ROANE ALLIANCE

ROANE COUNTY CHAMBER OF COMMERCE

TN ECD EAST TN REGION

ROANE COUNTY SCHOOLS

MOU

EVIDENCE OF CURRENT PARTNERSHIP SUCCESS

BUDGET (LINE ITEM)

The Greater Valley Partnership for Advanced Manufacturing Skills

Project Summary

The Tennessee College of Applied Technology (TCAT)- Harriman and Roane County School System propose a \$1,000,000.00 request of GIVE Grant funds in order to create what we have titled the “Greater Valley Partnership for Advanced Manufacturing Skills”. The proposal is to stand up a brand-new Machine Tool Technology Program in one of the west Roane County High Schools to balance the CTE offerings county-wide since a Machine Tool Technology Program already exists at one of the east Roane County High Schools. A majority of funds will be used to acquire machining equipment. A portion of the funds will also be used to purchase mechanical and electrical trainers to begin course offerings for the Electro-mechanical pathway at two of the high schools. Students who choose the Electro-mechanical pathway at those two high schools will have the opportunity to continue to a post-secondary credential at TCAT-Harriman in the Industrial Maintenance-Siemens Program or the Commercial/Industrial Electricity Program. A portion of the funds will be used to hire new instructors (two adjunct and one full-time) to help deliver these programs at each of the high schools. This partnership will help strengthen an already existing Advanced Manufacturing pathway and create a new pathway; both of which will promote post-secondary completion of a diploma which directly effects the Drive to 55 Initiative. The partnership will help fill current workforce demands as well as future workforce gaps in median wage career fields. These occupations have a great outlook in Tennessee and nationwide but are specific to a workforce demand and future workforce gap in the East Tennessee region.

Introduction

Tennessee College of Applied Technology-Harriman and Roane County Schools have been partnering for the last few years to offer dual enrollment courses in five Roane County High Schools. These courses helped a county that struggled with CTE budgeting due to the fact they manage five different high schools. Not only did TCAT-Harriman assist Roane County Schools in expanding their CTE offerings at the high schools but was able to help already existing CTE courses complete a quality program of study. With several industry recognized certifications embedded in the dual enrollment partnership courses, the students have an opportunity to earn Early Post-Secondary Opportunities. What began as a Welding course at one of the five high schools has now grown to two Welding courses, one Machine Tool Technology course, and multiple Health Science courses giving students at all five of the high schools dual enrollment opportunities. None of this growth would have been possible without small grants along the way and the help of some Perkins funding. However, the major contributor for our Machine Tool Technology Program was industry partnership. TCAT-Harriman was able to occupy an existing space that had once been a general metals program at one of the high schools. Some of the basic machinery, such as manual lathes and mills, were already present. Nevertheless, the program needed a major overhaul in order to teach Machine Tool Technology which would give the high school students hour-for-hour transfer credit as they continued post-secondary enrollment to finish a diploma at TCAT-Harriman. The community, including Roane County Schools, the local electric company, two sponsor employers, and TCAT-Harriman, collaborated to update the lab, add some computer-controlled (CNC) equipment, and open Machine Tool Technology Program offerings to Roane County 11th and 12th grade students.

The Greater Valley Partnership for Advanced Manufacturing Skills proposal will address a way for Roane County Schools and TCAT-Harriman to continue such partnerships. The plan will

Introduction

Tennessee College of Applied Technology-Harriman and Roane County Schools have been partnering for the last few years to offer dual enrollment courses in five Roane County High Schools. These courses helped a county that struggled with CTE budgeting due to the fact they manage five different high schools. Not only did TCAT-Harriman assist Roane County Schools in expanding their CTE offerings at the high schools but was able to help already existing CTE courses complete a quality program of study. With several industry recognized certifications embedded in the dual enrollment partnership courses, the students have an opportunity to earn Early Post-Secondary Opportunities. What began as a Welding course at one of the five high schools has now grown to two Welding courses, one Machine Tool Technology course, and multiple Health Science courses giving students at all five of the high schools dual enrollment opportunities. None of this growth would have been possible without small grants along the way and the help of some Perkins funding. However, the major contributor for our Machine Tool Technology Program was industry partnership. TCAT-Harriman was able to occupy an existing space that had once been a general metals program at one of the high schools. Some of the basic machinery, such as manual lathes and mills, were already present. Nevertheless, the program needed a major overhaul in order to teach Machine Tool Technology which would give the high school students hour-for-hour transfer credit as they continued post-secondary enrollment to finish a diploma at TCAT-Harriman. The community, including Roane County Schools, the local electric company, two sponsor employers, and TCAT-Harriman, collaborated to update the lab, add some computer-controlled (CNC) equipment, and open Machine Tool Technology Program offerings to Roane County 11th and 12th grade students.

The Greater Valley Partnership for Advanced Manufacturing Skills proposal will address a way for Roane County Schools and TCAT-Harriman to continue such partnerships. The plan will

The Greater Valley Partnership for Advanced Manufacturing Skills

meet current industry needs and fill future workforce gaps. The plan will continue the persistence of TCAT-Harriman to try to meet the Drive to 55 Initiative goals. The plan will continue a strong industry partnership that already has thriving work-based programs in place. The plan will utilize grant money to create three new pathways but show self- sustainability to continue them after the funding is depleted.

Demonstration of Need

The Greater Valley Partnership for Advanced Manufacturing Skills began through a collaborative effort of TCAT-Harriman administration, Roane County Schools administration, Roane County CTE Director, Roane County Chamber of Commerce, Roane County Industrial Board, and Roane Alliance Education Matters. Input from discussions and emails ultimately resulted in support letters involving several of Roane County Schools and TCAT-Harriman's shared industry partners. Those support letters can be found attached to the proposal. The discussion began with the fact that the existing Machine Tool Technology dual enrollment courses have been widely acclaimed and beneficial to students as well as industry; however, the fear is enough students are not receiving training to fill future workforce gaps. Discussions also led to the finding that as we partnered to build a stronger Machine Tool Technology training pathway, which accompanies the already existing strong Welding training pathway, we were missing pathway opportunities in the Advanced Manufacturing cluster for students who valued a career in Electro-Mechanical careers. These discussions were not only sparked by local industry and visits by the above group members to those industries but directly aligned with the data collected from the Tennessee Department of Labor's Occupational Data statistics for the East Tennessee region. According to these reports, three of the top twenty-five high demand occupations with the greatest number of annual openings are directly related to mechanical maintenance, installation, or repair and machine/production operators. According to a report

The Greater Valley Partnership for Advanced Manufacturing Skills

released by Tennessee Department of Labor predicting “Hot Jobs” through 2024, the following Machining or Electro-mechanical careers made the list:

General Maintenance and Repair Workers, **Machinist**, First Line Supervisors of Productions and Operating Workers, Inspectors/Testers,/Sorters/Samplers and Weighers, Machinery Maintenance Workers, **Industrial Machinery Mechanics**, First Line Supervisors of mechanics/installers/repairers, and **Electricians**

This data concluded eight of the twenty-four “Hot Jobs” that do not require a degree were directly related to the career pathways targeted by the Greater Valley Partnership for Advanced Manufacturing Skills. To complete the data, current Tennessee Occupation data was chosen for four of those specific careers and the following conclusions were made:

1. **Machinist**, which currently have 200 Tennessee jobs available, have a bright outlook for the State with a median hourly wage of \$20.73
2. Computer Controlled Machine Tool Operators, which currently have 39 Tennessee job openings, have a bright outlook for the state with a median hourly wage of \$18.01
3. **Industrial Machinery Mechanics**, which currently have 35 Tennessee job openings, have a bright outlook for the state and nationally with a median hourly wage of \$23.40
4. **Electricians**, which currently have 201 Tennessee Job openings, have a bright outlook for the state and nationally with a median hourly wage of \$23.68

Program Plan

The GIVE Grant funds will create the Greater Valley Partnership for Advanced Manufacturing Skills. A brand-new Machine Tool Technology program located in west Roane County is proposed to balance student access to Machining/Advanced Manufacturing CTE programs in a

The Greater Valley Partnership for Advanced Manufacturing Skills

county that has five high schools. The Machine Tool Technology program currently exists in an east Roane County high school. Also, some of the grant funds will be used to purchase mechanical and electrical trainers for two high schools in the county. The result will be a sustainable, seamless vertical alignment between K-12, postsecondary programs, and career opportunities as a result of effective partnerships among a school district, a higher education institution, employers, and community organizations for Advanced Manufacturing and Electro-Mechanical Quality Programs of Study with the intent to move forward to TN Pathways Certification.

Timeline

- In late October or early November, Roane County CTE administration and TCAT-Harriman administration will meet with stakeholders, such as stated industry partners and other related advisory members, to begin discussions regarding equipment specifications and program objectives to make sure they are aligned with up-to-date and relevant workforce needs.
- By January 2020, TCAT-Harriman will begin to bid equipment based on already received quotes. Announcements about the new CTE/dual enrollment opportunities for next school year will be made to all the guidance counselors and students at each selected high school.
- By the end of February 2020, construction for remodeling will begin in the specified lab areas and electrical upgrades and inspection will be complete as well. Purchasing will begin. Continue to announce and promote the new CTE offering to students at the selected high schools.
- By the first week of March 2020, all purchasing needs to be complete to give time for delivery and set-up before the end of the school year. TCAT-Harriman's Dual Enrollment

The Greater Valley Partnership for Advanced Manufacturing Skills

Counselor will work with high school guidance counselors to begin to identify students interested in the new dual enrollment course offerings.

- April through the beginning of May 2020, all equipment will be set-up. Students will work with guidance counselors to finalize fall schedules for the first students to enroll in the new dual enrollment courses in the fall semester of 2020.
- June 2020, the new instructors will attend the CTE conference for training in Nashville. Also, the Machine Tool Technology Instructor will attend Haas training.
- August 2020, the first set of high school juniors and seniors will attend the new dual enrollment programs.

Goals

As mentioned in the introduction, each program goal directly aligns with the Drive to 55 Initiative, the two primary goals are as follows:

- The first goal to acquire equipment for a new Machine Tool Technology Program at one of the west Roane County High School and enhance the already existing lab with one more piece of state-of-the-art equipment. Both dual enrollment courses will give students at those high schools a CTE pathway that encourages and allows students to continue to a post-secondary diploma as a Machinist. This will expand the number of graduates promoted through the Machine Tool Technology Program at TCAT-Harriman.
- The second goal, which includes two Roane County High Schools, will be to acquire equipment to set-up new Electro-mechanical labs. This addition will give each Roane County High School a new pathway in the Advanced Manufacturing cluster. The courses offered as dual enrollment courses in this pathway are directly aligned with the Industrial Maintenance-Siemens Program as well as the Commercial and Industrial component of Residential/Commercial/ Industrial Electricity Program at TCAT-Harriman which again

The Greater Valley Partnership for Advanced Manufacturing Skills

will encourage and allow the high school students to complete TCAT-Harriman programs resulting in a diploma. This will expand the number of post-secondary credentials awarded in the Industrial Maintenance and/or Residential/Commercial/Industrial Electricity Programs.

Objectives

Each of the two listed goals can be broken down into five additional objectives:

1. Interview, hire, and train an instructor for each of the new dual enrollment courses.
2. Enroll at least 15 students in each course offering for the fall term at each of the high schools. (This objective can be broken down even further because, within two years, each of the dual enrollment courses will have created a new CTE pathway at that high school that will include a freshman or sophomore course called Principles of Manufacturing. The Principles of Manufacturing Course will increase the number of students enrolled on a CTE pathway at each high school. The increase in number of students interested in the new CTE pathways will increase the number of courses offered each semester.)
3. Ensure each course has industry certifications built in the curriculum that align with local industry needs, as well as, Tennessee Department of Education's listed certifications for each pathway.
4. Create a capstone course for each pathway that includes a work-based learning experience.
5. Encourage and promote the continuation of post-secondary training through program completion at the TCAT-Harriman with a target goal of 50% of graduating seniors from each pathway.

Both goals can be met by August of 2020 and each of the five objectives can be accomplished within the first two years of establishing the new pathways at each high school. With each

The Greater Valley Partnership for Advanced Manufacturing Skills

objective focused on the Drive to 55 Initiative and both goals aligned with workforce demand in the East Tennessee Region, students graduating high school are guaranteed to have basic mechanical, electrical, and machining skills backed by industry certification and ready to enter the workforce. More importantly, a high percentage (target within the first two years is 50%) will continue to the TCAT-Harriman to complete those skills and be highly trained, highly in-demand graduates in Advanced Manufacturing. Graduates will be ready to enter the workforce at higher wages which closely follow the median wage range from the occupational data collected from Tennessee Department of Labor for each of the career paths.

Two of the high schools targeted rank in the top three of the five county high schools for diversity. These schools were chosen specifically by Roane County School administration in order to help traditionally under-represented populations to have career options through Career and Technical Education. The dual enrollment partnership between TCAT-Harriman and Roane County Schools was established to help identify, support, and increase post-secondary completion rates for special populations of Roane County. Low income, single parent households, minority students, and females in a predominately male field are all special population groups targeted by the TCAT-Harriman Student Recruiter and the high school Guidance Counselors. Information nights are designed specifically for such special population groups in order to educate them about dual enrollment opportunities, various industry opportunities not commonly known, and skilled job positions associated with the training. A major emphasis is put on the importance of continuing their post-secondary education at TCAT-Harriman to a diploma. The diploma level of training as mentioned earlier meets the Drive to 55 Initiative as well as allows the special population groups access to high skilled, median wage jobs. It is the plan to educate high school students and parents on the opportunities available to the targeted special population groups.

The Greater Valley Partnership for Advanced Manufacturing Skills

As explained, career counseling has already begun as a joint effort between TCAT-Harriman and Roane County Schools. The TCAT-Harriman and Roane County Schools partnership is a model of linking secondary CTE training to post-secondary technical education. All objectives taught in the already existing Machine Tool Technology and Welding dual enrollment courses are aligned with the college curriculum. Using the same objectives, training equipment, and an instructor tied to TCAT-Harriman's programs will provide conditions that allow transfer of hour-to-hour credit as well as a strong foundation of learning that will build concepts appropriate for completing objective competencies as the student advances through TCAT-Harriman's post-secondary programs. The Guidance Counselors at Roane County Schools and Students Services department at TCAT-Harriman work very closely together to ensure students understand the availability of continuing his/her post-secondary education. They work together to process the students' FAFSA and identify federal and state financial aid packages for students who choose to continue. Roane County Schools' Guidance Counselors are familiar with TCAT's enrollment process and work ahead of time during the student's senior year to provide shot records, transcripts, and complete online applications for enrollment. Students who were prepared for the transition to TCAT-Harriman as adult students after the first year of the partnership were recognized during an award ceremony known as "College Signing Day".

The Greater Valley Partnership for Advanced Manufacturing Skills has already established a committee that began organizing a plan as addressed in the proposal. The committee is made up of: Roane County Schools' Curriculum Supervisor, Roane County Schools' CTE Director, TCAT-Harriman's Vice President, Roane County Chamber of Commerce Representative, Roane County's Industrial Board Representative, and Education Matters Representative. The committee will continue to meet throughout the awarding and implementation of the plan. Chris Ayers, Vice President of TCAT-Harriman, was nominated by the committee to be the Director of the project.

The Greater Valley Partnership for Advanced Manufacturing Skills

As the project reaches each level of completion through the timeline, this committee will act as the steering committee to oversee the completion of the plan.

Attached to the proposal you will find an article showcasing the work-based learning opportunities that already exist in the current Machine Tool Technology Program (made possible by Roane County Schools and TCAT-Harriman's strong partnership). Cooperative work agreements found in the curriculum of each of TCAT-Harriman's existing adult programs are strongly relied upon by industry partnerships. TCAT-Harriman continues to offer these types of partnerships as they develop the dual enrollment courses at the high schools. Three types of work-based learning already exist for dual enrollment courses offered:

1. Internships- these experiences have been mostly in the summer between spring and fall classes. The attached letter from the Machining company DTS touches on these internships.
2. Clinical Rotations- Although these are not common practice in the Advanced Manufacturing cluster, the dual enrollment health sciences classes to practice clinical rotations
3. Cooperative Work Agreements- Roane County Schools and TCAT-Harriman are working hard with industry to implement more of this type of work-based learning. TCAT-Harriman commonly practices these agreements through their adult programs and therefore the curriculum is in place to facilitate the work agreement. A cooperative work agreement plan is already laid out and has signatures of partnership between the student, TCAT-Harriman, and the company. The student has an onsite supervisor that evaluates progress and reports back to the instructor as well as the instructor has an active role with the company.

The Greater Valley Partnership for Advanced Manufacturing Skills

As proven by the statistical data provided by the Tennessee Department of Labor and Tennessee Higher Education Commission, there is a current need and future trend for a workforce gap in the machining, mechanical maintenance, and commercial/industrial electrician fields. By acquiring equipment to expand CTE offering in these pathways Roane County Schools and TCAT-Harriman can directly impact the employment needs of companies in the Greater Valley Area. Many of Roane County residents are employed in Anderson, Loudon, and Knox counties as well as Roane County. These counties represent an area known as “Innovation Valley”. A major portion of the funds will be used to purchase equipment. Electro-mechanical trainers and Machining equipment that aligns with industry certification, TCAT-Harriman’s existing program, and matching or mimicking equipment used in local industry have been targeted for purchase. The major portion of the funds will be used to equip the Machine Tool Technology lab. The cost for machining equipment is tremendous and to duplicate the equipment enough to serve a full class of students requires a heavy budget.

Strength of Partnership

Attached you will find a Dual Enrollment Contract for the current school year that represents the existing and ongoing partnership that Roane County Schools and TCAT-Harriman share. These dual enrollment agreements act as TCAT-Harriman’s memorandum of understanding between the local school systems and the College. Also, attached you will find letters of support from partnering companies. These letters of support are special in the fact they are not just supporting the plan in the proposal but they have an already existing partnership with TCAT-Harriman and Roane County Schools including some type of work-based learning activity. These companies have hired existing students from programs that are part of this very proposal. In the following paragraph you will see that the committee put together to develop the plan that has been submitted in this proposal each had their own specified areas of expertise. They worked together

The Greater Valley Partnership for Advanced Manufacturing Skills

for careful consideration using prior experiences and knowledge to choose programs that they knew would fill local workforce gaps. It was important that the chosen programs have enough industry support to implement, establish strong secondary to post-secondary partnership, and include work-based learning, as well as, sustain themselves after the grant funds have been depleted.

Roane County Schools will provide the space for the three new labs. The space will include areas to house equipment as well as classroom space. The Roane County Director of Schools, Roane County CTE Director, and Roane County Curriculum Supervisor have worked together to identify lab space big enough to set-up a Machine Tool Technology Program at one of the existing west county High Schools. They also have classroom and lab proposals in at two other high schools in the county for the Electro-Mechanical classes and labs. They are committed to paying utilities to sustain the programs. They will continue to support the plan's objectives as they create quality programs of study through each of the new pathways. This will include support for teachers to teach the Principles of Manufacturing courses as well as CTE training, computer support, and any other technical support the TCAT Instructors may need at the high schools. Roane County Schools is committed to a sustainability plan to continue the funding for teaching positions and space to continue the dual enrollment partnership as long as there is a workforce demand for career associated with the two pathways.

TCAT-Harriman will provide the dual enrollment instruction and maintain the equipment and labs after the initial purchase and set up of the equipment. During implementation of the grant, reporting, and continuation of the grant objectives, TCAT-Harriman will employ the project director and act as the lead entity of the grant. TCAT-Harriman will continue to work with industry partners to detail specifications on the equipment being put out to bid. TCAT-Harriman will work with industry and vendors to secure bids and quotes for all the equipment process

The Greater Valley Partnership for Advanced Manufacturing Skills

purchases and set-up delivery. TCAT-Harriman and Roane County Schools will work together to coordinate deliveries and schedule machine set-up. TCAT-Harriman and Roane County Schools will work together to coordinate construction including electrical upgrades. TCAT-Harriman will work with Roane County Schools to schedule CTE training for instructors. TCAT-Harriman and Roane County Schools will work together to promote student access as the courses develop in the spring for the students fall semester schedule.

Roane County Chamber of Commerce and Education Matters will continue to be a part of the steering committee as they talk with local industry to promote this new and existing partnerships. All members of the committee will work together as they meet with industry to encourage internships and cooperative work agreements. They will also invite companies to come in and visit the new labs, be guest speakers, and join advisory committees.

Existing industry partners will be an active voice during the set-up. They will assist with equipment specifications help TCAT-Harriman develop authentic projects that not only directly align with curriculum but also align with industry partner's needed workforce skills. They will be key members of the advisory committees. They have been and will continue to be the active voices for evaluation of internships and cooperative work agreement. Existing Industries are also instrumental in the sustainability of the programs. Their need to hire from the programs are the driving forces of what programs need to remain open and what program changes need to be made. They are excellent resources on when equipment upgrades or repairs need to be made.

Budget Plans

As mentioned in the above plan, most of the funds will be used to set-up the new Machine Tool Technology Lab. That portion of the funds will be used to purchase the following equipment:

- Two Haas CNC Lathes ST-20 educational packages valued at \$66, 258.00 each
- One Haas CNC Mills educational packages valued at \$74, 999.00 each

The Greater Valley Partnership for Advanced Manufacturing Skills

- Four manual Lathes by Sharp valued at \$39,000.00 each
- Two manual Mills by Sharp valued at \$48,000.00 each

The current Machine Tool Technology Programs utilizes NIMS to ensure industry certifications for the graduates. NIMS is not only recognized by industry but NIMS-Machining Level 1 is also recognized as the certification for the Machining Technology pathway that gives the student an Early Post-Secondary Opportunity.

The second phase of funds will be spent in all three programs to ensure precision measurement is taught in both pathways. The Snap-on Precision Measurement Certification is an industry recognized certification and is also recognized by Tennessee Department of Education in the Advanced Manufacturing cluster as an Early Post-Secondary Opportunity certification. Grant funds will be used to purchase three Snap-on Precision Measurement Tool Boxes and certification package, valued at \$37,000.00 each.

As mentioned earlier Electro-mechanical trainers will be purchased for the other two labs in order to align courses with the Industrial Maintenance-Siemens and the Commercial/Industrial Electricity Programs. The following funds will be used to purchase those trainers:

- Four AC/DC electricity trainers valued at \$5,400.00 each
- Two Motor control relay trainers valued at \$3841.00 each
- Two PLC trainers valued at 9,950.00 each

General Tools and Supplies needed to teach mechanical components and precision bench work for all three programs will be valued at 20,803.00.

Travel for training and conferences across the first two years for the three new instructors will be values at approximately 7,000.00.

The Greater Valley Partnership for Advanced Manufacturing Skills

Each instructor will be trained and certified to teach OSHA-10 which will add another certification for the students that enroll in the three courses that is beneficial to them both at the industry level and as the Department of Education's recognized EPSOs.

Instructor salaries across the first two years will be approximately \$285,500.00 including 1 full-time instructor's benefits.

An indirect cost prediction of \$80,000.00 has been figured to cover the remodeling construction and electrical upgrades for each of the three labs.

Sustainability

Sustainability has been in discussion since the first meeting between Roane County Schools and TCAT-Harriman. As mentioned in the partnership section for each partner's key roles, Roane County Schools is committed to providing the space and utilities for the project. They realize that a teaching position will have to be added to the CTE budget in the next two years to manifest a quality program of study and are committed to that position. TCAT-Harriman is committed to dual enrollment instruction after the first two years of the plan. TCAT-Harriman is fully aware that they too will have to sustain a full-time salary with benefits as well as two adjunct positions. TCAT-Harriman plans on building a head count in each of the dual enrollment programs that will help offset the expense of instruction by receiving dual enrollment grant dollars for each junior and senior enrolled. It is also part of the partnership plan of both schools to eventually use one of the locations to offer an evening full-time program which will help offset the cost of full-time instruction with tuition revenue. TCAT-Harriman will inventory and maintain all equipment just as they do for all full-time programs. Each full-time program on the TCAT-Harriman main campus that support a dual enrollment program has additional budget dollars added for general supplies used in daily operation. The continued partnership from industry can help with tooling and raw supplies as they sometimes have donations when they change contracts or suppliers.

The Greater Valley Partnership for Advanced Manufacturing Skills

Industry has also been known to help with equipment repairs and modifications for new tooling. Roane County Schools, TCAT-Harriman, Education Matters, and Roane County Chamber of Commerce have been working together for many years and have maintained excellent communication and will continue that trend throughout the future. Roane County Schools and TCAT-Harriman have begun to share advisory committee meeting with local industry to strengthen communication and partnership and will continue this practice as for it got excellent feedback from industry partners for doing so. We work closely together to make sure dual enrollment courses have the resources they need to give quality instruction. And proof can be found in the grant plan and supporting documentation that TCAT-Harriman, Roane County Schools, and Education Matters have worked with their industry partners to assure them an organized delivery of work-based learning that industry partners already utilize and plan on continuing in the future. The newest addition for Roane County Schools last year was the appointment of a full-time CTE guidance counselor. That was followed up by a Perkins grant proposal this year from TCAT-Harriman that has been approved for a dual enrollment coordinator. Both of those positions will be utilized to deliver support and success to the dual enrollment students which will in turn help sustain successful programs.

Economic Status Acknowledgement

Roane County is not considered as economically distressed or at-risk; therefore, the partnership between TCAT-Harriman and Roane County Schools probably cannot be justified to receive additional funding in this proposal. However, TCAT-Harriman serves both Morgan and Rhea Counties, Morgan is considered distressed and Rhea is considered at-risk. Both adult and dual enrollment students from Morgan County are enrolled in the Machine Tool Technology Program, Industrial Maintenance-Siemens Program, and Residential/Commercial/Industrial Electricity Program.

Table 1: Top 25 High-Demand Occupations with the Greatest Number of Annual Openings

SOC Code	Occupation Title	Level of Education	Annual Openings	Candidates per Opening	Entry Annual Wage 2017
11-1021	General and Operations Managers	Bachelor's	4,740	0.47	\$45,280
29-1141	Registered Nurses	Bachelor's	4,315	0.05	\$45,440
51-1011	First-Line Supervisors of Production and Operating Workers	High school diploma	1,805	0.73	\$35,140
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's	1,495	0.39	\$39,540
15-1151	Computer User Support Specialists*	Some college	1,160	0.80	\$32,020
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma	1,110	0.90	\$40,980
13-1161	Market Research Analysts and Marketing Specialists	Bachelor's	1,100	0.61	\$34,150
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products*	Bachelor's	1,070	0.70	\$39,120
11-9111	Medical and Health Services Managers	Bachelor's	1,060	0.69	\$60,520
11-2022	Sales Managers*	Bachelor's	1,030	0.60	\$55,010
33-3051	Police and Sheriff's Patrol Officers	High school diploma	960	0.80	\$31,030
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Bachelor's	820	0.19	\$40,180
15-1132	Software Developers, Applications	Bachelor's	820	0.33	\$55,660
15-1121	Computer Systems Analysts	Bachelor's	720	0.39	\$46,860
29-2012	Medical and Clinical Laboratory Technicians	Associate	620	0.93	N/A
49-9043	Maintenance Workers, Machinery	High school diploma	590	0.58	\$30,550
17-2051	Civil Engineers	Bachelor's	570	0.24	\$59,790
11-1011	Chief Executives	Bachelor's	570	0.54	\$43,790
11-9033	Education Administrators, Postsecondary	Master's	535	1.00	\$49,630
31-2021	Physical Therapist Assistants	Associate	475	0.09	\$43,740
15-1142	Network and Computer Systems Administrators	Bachelor's	455	0.85	\$50,250
15-1133	Software Developers, Systems Software	Bachelor's	450	0.30	\$62,050
21-1022	Healthcare Social Workers	Master's	415	0.27	\$35,290
13-1051	Cost Estimators	Bachelor's	390	0.37	\$40,370
11-3071	Transportation, Storage, and Distribution Managers*	High school diploma	380	0.82	\$47,930

*Awards and matching employment data available at one level above or below the level of education listed.

Sources: Columns 1-4, TN Employment Projections 2016-2026, TDLWD; Column 5, Jobs4tn.gov; Column 6, TN Occupational Employment Survey, TDLWD



Careers to 2024

These careers have it all!

Personal Skills and Abilities

- advanced skills required
- moderate skills required
- A artistic/creative ability required

Personal Skills and Abilities

Job Title	2014-2024 Average Annual Openings	2016 Median Salary	Personal Skills: Reading (English)	Math Skills	Service Orientation	Persuasion Skills	Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability
Doctoral or professional degree										
Physical Therapists	20	\$88,328	●	○	●	●	●			
Master's degree										
Mental Health Counselors	20	\$39,874	●	○	●	●	●			
Nurse Practitioners	20	\$94,751	●	○	●	●	●			
Bachelor's degree										
Registered Nurses	110	\$54,824	●	○	●	●	○			
Accountants and Auditors	75	\$60,623	●	●	○	●	○			
Elementary School Teachers, Except Special Education	60	\$46,911	●	●	●	●	○			A
Industrial Engineers	30	\$78,826	●	●	○	●				
Financial Managers	25	\$92,297	●	●	●	●				
Management Analysts	20	\$91,194	●	○	○	●	○			A
Clergy	20	\$43,086	●	○	●	●				
Construction Managers	20	\$81,535	●	●	●	●	○			
Human Resources Specialists	15	\$48,139	●	○	●	○				
Civil Engineers	15	\$101,165	●	●	●	●	○	○		A
Sales Managers	15	\$72,328	●	●	●	●				
Associate's degree										
Preschool Teachers, Except Special Education	15	\$24,508	●	○	●	●				A
Physical Therapist Assistants	15	\$55,678	●	○	●	○	○			
Medical and Clinical Laboratory Technicians	15	\$32,400	●	○	○	●	●			
Postsecondary non-degree award										
Heavy and Tractor-Trailer Truck Drivers	115	\$42,539	●	○	○	○			○	
Nursing Assistants	95	\$22,857	●	○	●	○				
Dental Assistants	20	\$39,223	●	○	●	●	○			
Medical Assistants	20	\$26,595	●	○	●	●	○			
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	20	\$45,890	●	○	○	○	○		●	
Some college, no degree										
Teacher Assistants	75	\$19,012	●	○	●	●				A
Computer Support Specialists	35	\$39,383	●	○	●	●	○	○		
High school diploma or equivalent										
Team Assemblers	310	\$30,492	○	○	○	○				
Customer Service Representatives	100	\$27,164	●	○	●	●				
Office Clerks, General	100	\$27,927	●	○	●	●				
Maintenance and Repair Workers, General	80	\$37,307	●	○	○	○		●		
First-Line Supervisors of Retail Sales Workers	70	\$36,556	●	●	●	●				
First-Line Supervisors of Office and Administrative Support	55	\$45,408	●	○	●	●				
Machinists	55	\$48,697	●	○	○	○		○		
Secretaries and Administrative Assistants, Except Legal, Medical and Executive	55	\$29,613	●	○	●	●				
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	40	\$48,618	●	○	●	●				
Childcare Workers	35	\$18,364	●	○	●	●				
Electricians	30	\$54,068	●	●	○	○	○		●	
First-Line Supervisors of Production and Operating Workers	30	\$55,355	●	○	○	●				
Inspectors, Testers, Sorters, Samplers, and Weighers	30	\$35,520	●	○		○				

(continued on back)

✓ Jobs in Demand
✓ Positive Job Growth
✓ At least 15 expected annual job openings

HOT Careers to 2024

These careers have it all!

Job Title	Personal Skills and Abilities										Jobs in Demand
	2014-2024 Average Annual Openings	2016 Median Salary	Personal Skills: Reading (English)	Math Skills	Service Orientation	Persuasion Skills	Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability	
High school diploma or equivalent											✓
Maintenance Workers, Machinery	30	\$51,795	●	○	○	○			●		✓
Production, Planning, and Expediting Clerks	30	\$52,279	●	○	○	○					
Insurance Sales Agents	25	\$35,797	●	○	●	●					
Sales Representatives, Services, All Other	25	\$35,241									
First-Line Supervisors of Construction Trades and Extraction Workers	20	\$56,870	●	○	●	●	○		○		
Industrial Machinery Mechanics	20	\$39,067	○	○	○	○	○	○	●		✓
Recreation Workers	20	\$21,156	●	○	●	○					
Residential Advisors	20	N/A	●	○	●	●					
Electrical Power-Line Installers and Repairers	15	\$66,201	●	○	○	○			●		
First-Line Supervisors of Mechanics, Installers, and Repairers	15	\$57,418	●	●	●	●			○		
Food Service Managers	15	\$33,836	●	○	●	●	○				

At least 15 expected annual job openings

Occupation Profile for Machinists in Tennessee

Monthly Job Count Table

The table below shows the number of job openings advertised online for Machinists in Tennessee July, 2019 (Jobs Deduplication Level 2).

Occupation	Job Openings
Machinists 🇺🇸 🇯🇵	200

Source: Online advertised jobs data
Downloaded: 09/05/2019 9:48 AM

Occupation Profile for Machinists in Tennessee

Employment Wage Statistics Table

The table below shows the estimated employment wage statistics for individuals in Tennessee employed for Machinists in 2018.

Rate Type / Statistical Type	Entry level	Median	Experienced
Annual wage or salary	\$30,230	\$43,110	\$53,540
Hourly wage	\$14.53	\$20.73	\$25.74

Source: TN Dept of Labor & Workforce Dev, Div Emp Sec, LMI

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

Downloaded: 09/05/2019 10:25 AM

Occupation Profile for Computer-Controlled Machine Tool Operators, Metal and Plastic in Tennessee

Jobs Available Table

The table below shows the number of job openings advertised online in Tennessee for Computer-Controlled Machine Tool Operators, Metal and Plastic and for the related occupational group of Production Occupations on September 4, 2019 (Jobs De-duplication Level 2).

Occupation	Job Openings
Computer-Controlled Machine Tool Operators, Metal and Plastic	39
Production Occupations	3,610

Source: Online advertised jobs data
Downloaded: 09/05/2019 9:42 AM

Occupation Profile for Computer-Controlled Machine Tool Operators, Metal and Plastic in Tennessee

Employment Wage Statistics Table

The table below shows the estimated employment wage statistics for individuals in Tennessee employed for Computer-Controlled Machine Tool Operators, Metal and Plastic in 2018.

Rate Type / Statistical Type	Entry level	Median	Experienced
Annual wage or salary	\$28,420	\$37,460	\$44,500
Hourly wage	\$13.66	\$18.01	\$21.39

Source: TN Dept of Labor & Workforce Dev, Div Emp Sec, LMI

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

Downloaded: 09/05/2019 10:30 AM

Occupation Profile for Industrial Machinery Mechanics in Tennessee

Jobs Available Table

The table below shows the number of job openings advertised online in Tennessee for Industrial Machinery Mechanics and for the related occupational group of Installation, Maintenance, and Repair Occupations on September 4, 2019 (Jobs De-duplication Level 2).

Occupation	Job Openings
Industrial Machinery Mechanics 	35
Installation, Maintenance, and Repair Occupations	2,685

Source: Online advertised jobs data
Downloaded: 09/05/2019 10:33 AM

Occupation Profile for Industrial Machinery Mechanics in Tennessee

Employment Wage Statistics Table

The table below shows the estimated employment wage statistics for individuals in Tennessee employed for Industrial Machinery Mechanics in 2018.

Rate Type / Statistical Type	Entry level	Median	Experienced
Annual wage or salary	\$34,620	\$48,660	\$56,830
Hourly wage	\$16.64	\$23.40	\$27.32

Source: TN Dept of Labor & Workforce Dev, Div Emp Sec, LMI

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

Downloaded: 09/05/2019 10:13 AM

Occupation Profile for Electricians in Tennessee

Jobs and Candidates Available Table

The table below shows the number of job openings advertised online, as well as potential candidates in the workforce system in Tennessee for Electricians and for the related occupational group of Construction and Extraction Occupations on September 4, 2019 (Jobs De-duplication Level 2).

Occupation	Job Openings	Candidates	Candidates per Job
Electricians 🇺🇸 🇨🇦	201	142	0.71
Construction and Extraction Occupations	1,354	1,438	1.06

Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

Downloaded: 09/05/2019 10:27 AM

Occupation Profile for Electricians in Tennessee

Employment Wage Statistics Table

The table below shows the estimated employment wage statistics for individuals in Tennessee employed for Electricians in 2018.

Rate Type / Statistical Type	Entry level	Median	Experienced
Annual wage or salary	\$33,930	\$49,260	\$58,950
Hourly wage	\$16.31	\$23.68	\$28.34

Source: TN Dept of Labor & Workforce Dev, Div Emp Sec, LMI

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

Downloaded: 09/05/2019 10:26 AM



September 5, 2019

To Whom it May Concern,

CoorsTek, Inc would like to offer its full support of Roane County School's future plans to produce more high school graduates that are preparing to enter advanced manufacturing fields. We are ready to partner with the Tennessee College of Applied Technology - Harriman in implementing its GIVE Grant to add new dual enrollment classes with Roane County Schools that add additional pathways for students interested in Welding, Machine Tool Technology, and Mechanical or Electrical Maintenance positions. We understand that this grant will expand the Machine Tool Technology Program and purchase mechanical and electrical trainers for the CTE electro-mechanical pathway that aligns with and will be accompanied by TCAT-Harriman's Industrial Maintenance and Industrial Electricity Program for an internship.

We look forward to working with TCAT-Harriman and Roane County Schools on this opportunity by communicating with the instructors of these programs through advisory committees and as guest speakers. We will also explore the expansion and continuation of internships and/or cooperative work agreements as we have in recent times.

In closing, we wish TCAT-Harriman and Roane County Schools the best on their approach to receive grant funding for the focus of advanced manufacturing training for Roane County's high school graduates. The skills that these students will acquire through these programs will be invaluable to the future viability of our business.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Canon", is written over a horizontal line.

Jason Canon
Plant Manager, Oak Ridge Facility

1100 Commerce Park Drive Oak Ridge, TN 37830 USA	T	1 865 481 8021	info@coorstek.com
	F	1 865 481 8022	coorstek.com



Dienamic Tooling Systems, Inc.

A member of the Tooling Systems Group

303 Sam Rayburn Parkway, Lenoir City, TN 37771

Phone (865) 717-1540 Fax (865) 717-1555

September 5, 2019

Subject: State of TN GIVE Grant Application by Tennessee College of Applied Technology

Located in Roane County, Dienamic Tooling Systems designs, builds, re-engineers, and services medium to large sized sheet metal stamping dies and tooling. As part stampers moved away from Detroit, a growing demand for tool and die builders arose from the Great Southeast. In May of 1997, Dienamic Tooling Systems, Inc. (DTS) decided to meet that demand by offering its services for custom stampings dies and service. Pleasing its global customer base of automotive, appliance, and other industrial part manufacturers, DTS provides the paramount level of quality in its dies and tooling.

DTS currently has 65 employees, which include project managers, estimators, designers, die builders, machinist, and administrators. Our employees primarily reside in Roane County. As such, we are particularly excited about supporting the opportunities for high school students in Roane County through CTE and work-based learning programs.

DTS currently uses multiple methods to reach local students. Many students are interested in better understanding what DTS does exactly, and what the work environment looks like. To give students a better idea, we offer tours to any interested high school classes where we discuss the process of becoming a Tool and Die Maker and explain how the machines work in our facility. Additionally, we have partnered with multiple Roane County Schools machining classes by donating supplies and machines. Furthermore, we offer work-based learning opportunities to students in those classes. If any of those students are interested in pursuing a career with DTS after graduation, then they are given the option to apply for DTS's Registered Tool and Die Maker Apprenticeship program.

A few details about our Apprenticeship program include:

- The apprenticeship program at DTS is a time based program that includes:
 - 8,000 hours of On the Job Learning
 - 622 hours of related online class instruction
- With the hours required, it typically takes 4 years to complete the apprenticeship program
- In terms of pay, Apprentices are given 6 month reviews and raises that follow an incremental pattern
 - Pay starts at \$12/hour and goes up to at least \$23/hour on average
- Upon completion of the program, Apprentices will be recognized as Journeyman Tool and Die Makers by the Department of Labor.

Our operations require the employment of skilled Machinists and Tool and Die Makers. With new positions and turnover, we expect to hire or enroll approximately twenty Machinists or Tool and Die Makers in our program over the next five years; specifically, four new hires (including turnover replacements) annually. DTS currently has two Die Maker Apprentices who completed our work-based learning program with Roane County Schools- one from Roane County High School's Welding class and one from Oliver Springs High School's Machining class.

Since partnering with Roane County Schools and TCAT, DTS has seen tremendous support from the community about working with the students. DTS hopes to be able to give students in the community the knowledge and skills to better prepare for path they chose to take after they graduate high-school. We look forward to continuing our partnership with Roane County Schools and TCAT, and are excited about the program expansions.

Closing,

A handwritten signature in black ink, appearing to read "Mike Walker", with a long horizontal flourish extending to the right.

Mike Walker
President



MASSEY ELECTRIC
C O M P A N Y

Danice Turpin
President
TCAT Harriman
1745 Harriman Highway
Harriman, TN 37748

Dear Mrs. Turpin:

Massey Electric Company is an electrical contractor specializing in Commercial, Industrial and Institutional projects. With over 14,000 successful installations in Tennessee, Kentucky, Georgia, South Carolina, North Carolina and Virginia, Massey Electric Company has earned its reputation as the finest, most innovative electrical contracting firm in the region.

Massey Electric Company will partner with TCAT-Harriman on Work Based Learning opportunities such as cooperative learning and/ or apprenticeships. As an industry partner, we agree to the following:

- Continue a strong work-based learning partnership by hiring TCAT-Harriman students to work through a cooperative work agreement.
- Assist TCAT-Harriman to establish a Registered Apprenticeship Program if the need arises.
- Expand our work-based learning partnership to maybe include future apprenticeship training.
- Provide subject matter expert(s) to help design programs that correspond with our hiring needs and that build career advancement opportunities for the students.
- Assist in the screening and selection of candidates.
- Help to ensure coop students and/or apprentice(s) are supervised by experienced mentor(s).
- Cooperate with TCAT Harriman faculty in the monitoring and recording student's progress.

Given the increasing demand for qualified, skilled workers at Massey Electric Company, we look forward to supporting a program that will meet the emerging employment needs of the industry.

Sincerely

Gary W. Massengill
President -- Industrial Division



September 5, 2019

Subject: Support

MPP Rockwood is in support of Roane County School's future plans to produce more high school graduates that are preparing to enter advanced manufacturing fields. We are ready to partner with the Tennessee College of Applied Technology - Harriman in implementing its GIVE Grant to add new dual enrollment classes with Roane County Schools that add additional pathways for students interested in Welding, Machine Tool Technology, and Mechanical or Electrical Maintenance positions. We understand that this grant will expand the Machine Tool Technology Program and purchase mechanical and electrical trainers for the CTE electro-mechanical pathway that aligns with and will be accompanied by TCAT-Harriman's Industrial Maintenance and Industrial Electricity Program for an internship.

We look forward to working with TCAT-Harriman and Roane County Schools on this opportunity by communicating with the instructors of these programs through advisory committees and as guest speakers. We will explore the possibilities of internships and or cooperative work agreements.

In closing, we wish TCAT-Harriman and Roane County Schools the best on their approach to receive grant funding for the focus of advanced manufacturing training for Roane County's high school graduates.

Regards,

A handwritten signature in black ink that reads "Bill Grayson".

Bill Grayson

Maintenance Manager

MPP – Rockwood

315 Cardiff Valley Road | Rockwood, Tennessee 37854

www.MPPinnovation.com



Education Matters

Roane Alliance

September 4, 2019

Subject: State of Tennessee GIVE Grant Application by Tennessee College of Applied Technology - Harriman

Education Matters is a coalition of programs and partnerships with the goal of ensuring every child in Roane County goes on to a post-secondary school...and does well when they do. It is a workforce development program that enhances Roane County's and our region's economic stability and prosperity by focusing on people; it is a human-resources strategy.

Education Matters is a full partner with the Tennessee College of Applied Technology - Harriman in implementing its GIVE Grant to add new Career Technical Education (CTE) dual enrollment classes with Roane County Schools. This grant will expand the Machine Tool Technology Program and purchase mechanical and electrical trainers for the CTE electro-mechanical pathway that aligns with and will be accompanied by TCAT-Harriman's Industrial Maintenance Program for an internship.

Education Matters has been focusing on CTE in Roane County Schools(RCS) for several years by encouraging high school students to consider their career options, promoting participation in CTE programs, and increasing the number of Work-Based Learning (WBL) opportunities.

In 2007, we partnered with RCS to establish our Tennessee Scholars program; the 2019 RCS graduating class set records with 145 Tennessee Scholar Graduates, 31.2% of the graduating class. We are now working with RCS to establish a Work Ethic Diploma program.

Beginning with the RCS Annual High School Career Day in 2009, we have continued to increase opportunities for career exploration with visits to businesses and more access to business representatives to visit classrooms. We also conduct a Middle School Career Day for all RCS 8th graders. Additionally, all RCS high school and middle school teachers have visited local businesses, Roane State Community College, and TCAT-Harriman to gain a better appreciation of the career opportunities within our region. We've increased opportunities for our local businesses to partner with our educators to expand and improve CTE and WBL programs.

With the increased CTE programs supported by the Tennessee GIVE Grant, these programs will help to ensure our current and future businesses will have access to skilled workers to meet their current and future requirements. We are committed to supporting youth opportunities for technical post-secondary training, which includes dual enrollment opportunities to prepare them for skilled employment and future career pathways.

We look forward to working with TCAT-Harriman on this opportunity to increase dual enrollment and CTE programs that will support the region's economic development and ensure our youth are prepared for the future.

Sincerely,

Allen Lutz
Director, Education & Workforce

The Roane Alliance - A Unified Drive. A United Force.

1209 N. Kentucky Street • Kingston, TN 37763 **o:** 865.376.5572 **f:** 865.376.4978 **e:**
chamber@roanealliance.org



September 4, 2019

Subject: State of Tennessee GIVE Grant Application by Tennessee College of Applied Technology-Harriman

The Roane Alliance/Roane County Chamber of Commerce is the economic development organization for Roane County. We are a full partner with the Tennessee College of Applied Technology - Harriman in implementing its GIVE Grant to add new dual enrollment classes with Roane County Schools. This grant will expand the Machine Tool Technology Program and purchase mechanical and electrical trainers for the CTE electro-mechanical pathway that aligns with and will be accompanied by TCAT-Harriman's Industrial Maintenance Program for an internship.

Roane County has many workers that travel to Roane County for employment and county residents that travel to other counties for employment. These programs will help to ensure our current and future businesses will have access to skilled workers to meet their current and future requirements. We are committed to supporting youth opportunities for technical post-secondary training, which includes dual enrollment opportunities to prepare them for skilled employment and future career pathways.

Many of our businesses are small but have needs for machining, industrial maintenance, and advanced manufacturing technicians. The availability of these technicians, with the industry-recognized credentials, is important to our economic development and growth. Some of our local businesses needing these skills to be successful include manufacturing companies (Dienamic Tooling Systems, DWK Life Sciences, and MPP), and many others (Harriman Utility Board, Oak Ridge Utility District, Oak Ridge National Laboratory, and Rockwood Electric).

We look forward to working with TCAT-Harriman on this opportunity by communicating with the business community through our newsletters and meetings, promotion of Work-Based Learning opportunities, facilitating engagement between the school systems and employers, providing space for local employer meetings, and other creative ways.

The Tennessee College of Applied Technology-Harriman, Roane State Community College, Roane County Schools, and area employers each play important roles in ensuring our youth are prepared for the future. We look forward to being a part of this effort.

Sincerely,

Pam May
CEO/President

A Unified Drive. A United Force.

1209 N. Kentucky Street • Kingston, TN 37763 ☎: 865.376.5572 📠: 865.376.4978 📧: chamber@roanealliance.org



September 4, 2019

Attention: TN GIVE Grant Application by the Tennessee College of Applied Technology -
Harriman

On behalf of the Tennessee College of Applied Technology Harriman (TCAT), I have reviewed and support the GIVE grant proposal as they plan to add and expand three advanced manufacturing programs with the Roane County School system.

The Roane County Schools and the TCAT will be partnering to add Machining Technology at the Rockwood High School, expand Machining Technology at the Oliver Springs High School and add an Electromechanical Technology program to the TCAT Harriman campus for Harriman High School. These additional programs will assist to meet the current void in the region to provide a qualified workforce for the regional business and industries.

Understanding the needs of our local businesses and industries, allows to provide my current and continued support of these program. I can attest to the dedication of both institutions which are dedicated to their missions as they strive to provide additional training opportunities to the residents of east Tennessee.

I appreciate your positive consideration for their request.

With best regards,

Gary Human

Gary Human
Regional Director, East Region
865/210-1333
gary.human@tn.gov

**Dual Enrollment Agreement
Between
Tennessee College of Applied Technology - Harriman
and
Roane County Schools
For 2019-2020 Academic Year**

This Agreement, by and between Tennessee College of Applied Technology - Harriman, hereinafter referred to as the College and Roane County Schools hereinafter referred to as the School System is for the purpose of providing eligible high school students the opportunity to earn both college and high school graduation credits simultaneously upon successful completion of qualified course(s), as further defined in the "SCOPE OF SERVICES."

OVERVIEW

In accordance with the guidelines set forth by the Tennessee Board of Regents (TBR), the Tennessee Higher Education Commission (THEC), and the procedures established by Tennessee College of Applied Technology - Harriman, we, the College, do hereby enter into this Agreement to provide eligible high school students the opportunity to earn both TCAT (clock hours) and high school graduation credits simultaneously upon successful completion of qualified course(s). Such agreement is in accordance with Tennessee Board of Regents Policy 2:03:00:00.

Qualified programs/courses are those listed in the current Tennessee College of Applied Technology - Harriman catalog which use the program/course syllabus, including outcomes and requirements, and text and materials approved by the respective College.

Eligible students must be enrolled as 9th, 10th, 11th, or 12th grade students in a Tennessee public or nonpublic secondary school, or in a home education program.

Students may enroll in a specific program/course based on the program/course's specific placement requirements as determined by the College. Enrollment must be in dual enrollment course that lead to a certificate or diploma.

Students must submit to the Dual Enrollment Counselor:

- A completed application for admission signed by the student;
- Required signatures from student and parent or legal guardian.

High school students enrolled in the dual enrollment program must maintain a cumulative GPA or numeric grade of at least 2.75 in the College course(s) in order to register for subsequent College course(s). Exceptions must be submitted in writing to the College President.

All costs associated with enrollment in college courses shall be the responsibility of the school, student, or his/her parent or legal guardian.

Students may be eligible for the Tennessee Lottery Dual Enrollment Grant and may complete an application online through the Tennessee Student Assistance Corporation (TSAC) within the appropriate time frame.

A. RESPONSIBILITIES OF THE PARTIES

A.1 The College:

- Is responsible for ensuring qualified faculty or adjunct faculty teach the course(s).
- Will provide a mandatory orientation session on the main campus for all adjunct faculty.
- Reserves the right to schedule an observation of the class by the President or President's Designee at any time to ensure that College-level outcomes are met.
- Will conduct periodic performance reviews of all faculty, and reserves the right to refuse reappointment of any instructor who does not meet College standards of instruction.

- Will award College credit for each course successfully completed.
- Will adhere to the School System's standard operating procedures for the reservation and utilization of school equipment.
- Reserves its right to approve science and computer laboratories and equipment as appropriate and compatible for delivery of a course.
- Will make effort to coordinate course delivery with the needs of the high school.
- Maintains its right to cancel any class with enrollment insufficient to cover expenses.

A.2. The School System designee shall:

- Award high school graduation credit(s) for each college course successfully completed.
- Provide appropriate classroom space and instructional equipment for classes offered on site.
- Pursuant to 0520-1-3-.06(4) (c) 1. of Tennessee School System Rules, Regulations, and Minimum Standards for the Governance of Tennessee Public School (1994), retain the right to observe and supervise instruction, which is conducted in the high school during regular school hours.

A.3. The College and the School System shall:

- Designate a duly responsible coordinator to provide oversight of details and distribute general program information and necessary forms to students.
- Jointly determine the course(s) to be offered, subject to College staffing and scheduling limitations. Start and end dates for terms will follow the Tennessee Board of Regents common calendar dates.
- Agree to follow the college academic calendar for all courses offered. Any exceptions must be approved by the college.
- Provide appropriate information to the Students regarding Dual Enrollment Lottery Grant.
- Provide appropriate information to the student regarding the Dual Enrollment Lottery Grant.

AGREEMENT TERM:

B.1. Term. This Agreement shall be effective for the period commencing on July 1, 2019 and ending on June 30, 2020

B.2. Term Extension. The Institution reserves the right to extend this Agreement for an additional period or periods of time representing increments of no more than one year and a total term of no more than FIVE years, provided that the Institution notifies the School System, in writing, of its intention to do so at least 30 days prior to the Agreement expiration date. An extension of the term of this Agreement will be effected through an amendment to the Agreement. If any extension of the Agreement necessitates additional funding, the increase in the College's maximum liability will also be effected through an amendment to the Agreement.

C. FACULTY

C.1. Instructors for the dual enrollment classes shall be subject to the approval of both Parties and will adhere to College policies regarding academic standards and documentation of attendance and grades.

C. 2. In the event the instructor is provided and compensated by the College, such compensation will be based upon applicable College policies as to College faculty. (This includes instructors from other higher education institutions on dual services agreements)

D. TERMS AND CONDITIONS:

- D.1. Required Approvals. The Institution is not bound by this Agreement until it is approved by the appropriate officials in accordance with applicable Tennessee laws and regulations as shown on the signature page of this Agreement.
- D.2. Modification and Amendment. This Agreement may be modified only by a written amendment executed by all parties hereto and approved by the appropriate officials.
- D.3. Performance. The Institution reserves the right to replace/request the School System to replace any instructor for non-performance and/or violation of College policies and guidelines.
- D.4. Termination. Either party may terminate this Agreement with or without cause for any reason. Either party shall provide the other at least ninety (90) days written notice before the effective termination date. Termination shall not be effective until the end of the academic year then in progress.
- D.5. Nondiscrimination. The School System hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Agreement or in the employment practices of the School System on the grounds of disability, age, race, color, religion, sex, veteran status, national origin, or any other classification protected by Federal, or State constitutional or statutory law. The School System shall, upon request, show proof of such nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.
- D.6. State and Federal Compliance. The School System shall comply with all applicable State and Federal laws and regulations, including without limitation with the Family Educational Rights and Privacy Act (FERPA) and Institution policies and guidelines in the performance of this Contract. The School System/High School/School System agrees that its officers, employees and agents will use personally identifiable information from an education record disclosed pursuant to this Agreement only for the purposes for which the disclosure was made and not for any other purpose. The personally identifiable information may not be disclosed or re-disclosed by either Party to any but the other Party without prior written consent of the student or as otherwise permitted by the Agreement.
- D.7. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Tennessee.
- D.8. Severability. If any terms or conditions of this Agreement are held to be invalid or unenforceable as a matter of law, the other terms and conditions hereof shall not be affected thereby and shall remain in full force and effect. To this end, the terms and conditions of this Agreement are declared severable.
- D.9. Communications and Contacts.

The Institution:
Danice Turpin, President
Tennessee College of Applied Technology – Harriman
1745 Harriman Hwy
Harriman, TN 37748
865-882-3703

The School System:
Roane County Schools
105 Bluff Rd
Kingston, TN 37763
865-376-5592

- D.10. Relationship of the Parties. This Agreement shall in no way be interpreted as creating an agency or employment relationship between the parties.

- D.11. Liability. College is a public institution of higher education governed by the Tennessee Board of Regents. As a state entity, its liability arising from performance under this agreement shall be subject to and limited to those rights and remedies, if any, available under T. C. A. §§ 9-8-101 through 9-8-407. The School System is a political subdivision of the state and, as such its liability for injuries which may result from its performance under this agreement shall be subject to and limited to those rights and remedies, if any, available under the Tennessee Governmental Tort Liability Act, §§ T. C. A. 29-20-201, et seq.

Each party shall be solely liable for payment of its portion of all claims, liability, costs, expenses, demands, settlements, or judgments resulting from action or omissions of itself or those for whom it is legally responsible, relating to or arising under this Agreement.

IN WITNESS WHEREOF:

Roane County Schools

Adonna McCall
Superintendent

7/25/19
Date

Tennessee College of Applied Technology - Harriman

Debbie P. Jones
President

6/21/19
Date

Tennessee Board of Regents

Chancellor

Date

SCHOOL

8

Roane County News • Friday, September 14, 2018

Could Be Here!
Getting ALL the
ATTENTION!

Call Your Ad Rep Today!

OS student snags Roane's first work-study

Taylor Phillips heads to CoorsTek post

Sept. 7 was a special day for an Oliver Springs High School student.

Taylor Phillips was honored in a signing ceremony for being the first Roane County student to obtain a work-study position that is directly aligned with his future career goals.

The Oak Ridge branch of CoorsTek extended its first work study position ever to Phillips.

CoorsTek is a privately owned company and a global manufacturer of technical ceramics utilized in a variety of industries.

Phillips' apprenticeship will allow him to train with a leading company while in high school and to pursue a career in his chosen field.

Corey Mashburn, Roane County Schools college and career counselor; Lance Duff, Roane County Schools director of career and technical education; Russell Jenkins, Roane County Schools secondary schools supervisor; Chris Ayers, assistant director of Tennessee College of Applied Technology in Harriman; Andrew Ayandott, TCAT dual studies instructor; Oliver Springs High School Principal Justin Nivens and Assistant Principal Mary Nipper attended Phillips' signing.



Courtesy of Mary Nipper
Corey Mashburn and Lance Duff of Roane County Schools watch as Taylor Phillips signs with CoorsTek. Seated beside Phillips is Chris Ayers, assistant director of Tennessee College of Applied Technology in Harriman.

GRANT BUDGET

GIVE Program Competitive Grant

The grant budget line-item amounts below shall be applicable only to expenses incurred during the following
Applicable Period: BEGIN: October 24, 2019 END: April 25, 2022

POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY ¹	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1, 2	Salaries, Benefits & Taxes	285,500.00	12,000.00	0.00
4, 15	Professional Fee, Grant & Award ²	0.00	0.00	0.00
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	20,803.00	9,197.00	0.00
11, 12	Travel, Conferences & Meetings	7,000.00	5,000.00	0.00
13	Interest ²	0.00	0.00	0.00
14	Insurance	0.00	0.00	0.00
16	Specific Assistance To Individuals	0.00	0.00	0.00
17	Depreciation ²	0.00	0.00	0.00
18	Other Non-Personnel ²	80,000.00	0.00	0.00
20	Capital Purchase ²	644,600.00	0.00	0.00
22	Indirect Cost	0.00	5,000.00	0.00
24	In-Kind Expense	0.00	45,000.00	0.00
25	GRAND TOTAL	1,000,000.00	76,197.00	1,076,197.00

¹ Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, Uniform Reporting Requirements and Cost Allocation Plans for Sub recipients of Federal and State Grant Monies, Appendix A. (posted on the Internet at: www.state.tn.us/finance/act/documents/policy3.pdf).

² Applicable detail follows this page if line-item is funded.